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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,883	12/14/2000	Richard L. Solomon	00-450	7611

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EXAMINER

VU, TRISHA U

ART UNIT	PAPER NUMBER
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2189

DATE MAILED: 07/30/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/736,883

Applicant(s)

SOLOMON ET AL.

Examiner

Trisha U. Vu

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2189

DETAILED ACTION

1. Claims 1-20 are presented for examination.

Claim Objections

2. Claim 5 is objected to because of the following informalities: "transaction are completed" in line 2 should be changed to "transactions are completed". Appropriate correction is required.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Micalizzi et al. (6,564,271) (herein after (Micalizzi)).

As to claim 1, Micalizzi teaches an interface system (host adapter board 116) suitable for coupling a first bus interface controller with a second bus interface controller (bus 114 and bus 130) (Fig. 1), comprising: a first bus interface controller (at least channel 125/arbitrator 206) (col. 4, lines 29-49 and Fig. 3) and a second bus interface controller (at least SXP 128) (col. 4, lines 1-7 and Fig. 1) wherein the second bus interface controller is coupled to the first bus interface controller via an interface (part of host adapter 118) including: a command queuing interface (inbound logic 202 or request buffer 210) suitable for enqueueing a transaction (Fig. 3, col. 5, lines 6-15, and col. 7, lines 26-34); a command completion interface (outbound logic 204 or response buffer

Art Unit: 2189

212) suitable for reporting transaction completion (col. 7 lines 59-65 and col. 8, lines 1-11); and a data transfer interface (inbound logic 202 or request buffer 210) suitable for transferring data (Fig. 3 and col. 5, lines 6-20).

As to claim 9, Micalizzi teaches a method of transferring data, comprising: enqueueing a transaction on a command queuing interface (inbound logic 202 or request buffer 210); transferring data corresponding to the transaction on a data transfer interface (inbound logic 202 or request buffer 210) (Fig. 3, col. 5, lines 6-15, and col. 7, lines 26-34); and receiving notification of completion of the transfer of data corresponding to the transaction, the notification reported on a command completion interface (outbound logic 204 or response buffer 212) (col. 7 lines 59-65 and col. 8, lines 1-11).

As to claim 14, Micalizzi teaches an interface system (host adapter board 116) suitable for coupling a first bus interface controller with a second bus interface controller (bus 114 and bus 130) (Fig. 1), comprising: a first bus interface controller (at least channel 125/arbitrator 206) (col. 4, lines 29-49 and Fig. 3) suitable for coupling to a backend device (host system 102) (Fig. 1); and a second bus interface controller (at least SXP 128) (col. 4, lines 1-7 and Fig. 1) suitable for coupling to an internal bus of an information handling system (bus 130) (Fig. 1), wherein the second bus interface controller is coupled to the first bus interface controller via an interface (part of host adapter 118) including: a command queuing interface (inbound logic 202 or request buffer 210) suitable for enqueueing a transaction (Fig. 3, col. 5, lines 6-15, and col. 7, lines 26-34); a command completion interface (outbound logic 204 or response buffer 212) suitable for reporting transaction completion (col. 7 lines 59-65 and col. 8, lines 1-

Art Unit: 2189

11); and a data transfer interface (inbound logic 202 or request buffer 210) suitable for transferring data (Fig. 3 and col. 5, lines 6-20).

As to claims 2, 11, and 15, Micalizzi further teaches command and control information are suitable for being exchanged on at least one of the command queuing interface and command completion interface (outbound logic 204 or response buffer 212) while data is exchanged on the data transfer interface (inbound logic 202 or request buffer 210) (col. 3, lines 65-67 and col. 5, lines 6-20).

As to claims 3, 12, and 16, Micalizzi further teaches data for transaction is suitable for being moved without respect to a current transaction being requested on a control bus (col. 3, lines 65-67 and col. 5, lines 6-20).

As to claims 4, 13, and 17, Micalizzi further teaches a backend master device (host system 102) enqueues a transaction on the command queuing interface, at least one transfer of data is accomplished corresponding to the transaction queued on the command queuing interface, and completion status of the transaction is reported on the command completion interface (col. 8, lines 3-14).

As to claims 5, 10, and 18, Micalizzi further teaches a plurality of transactions are queued, the transactions are completed without regard to an order the transactions are queued (col. 5, lines 6-9 and col. 9, lines 28-40).

As to claim 6, Micalizzi further teaches the first bus interface controller is suitable for coupling to a backend device (host system 102) and the second bus interface controller is suitable for coupling to an internal bus of an information handling system (bus 130) (Fig. 1).

As to claims 7 and 19, Micalizzi further teaches the first bus interface controller conforms to at least one of a USB standard, SCSI standard, fiber standard and the second bus interface conforms to at least one of a PCI standard and PCI-X standard (col. 3, lines 16-25).

As to claims 8 and 20, Micalizzi further teaches a plurality of data transfers on the data transfer interface are executed, the plurality of data transfers corresponding to a transaction queued on the command queuing interface (col. 4, lines 1-5).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, as the art teaches command queuing, separate command/data interfaces, and/or separate completion interface:

US Patent	5,905,876	Pawlowski et al.
US Patent	6,233,628	Salmonsens et al.
US Patent	5,875,343	Binford et al.
US Patent	6,490,644	Hyde, II et al.
US Patent	5,991,843	Porterfield et al.
US Patent	6,088,740	Ghaffari et al.
US Patent Application	Pub. No. 2002/0083256	Pannell
European Patent Application	Pub. No. 0 486 230 A1	Lattin et al.

Art Unit: 2189

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trisha U. Vu whose telephone number is 703-305-5959. The examiner can normally be reached on Mon-Thur and alternate Fri from 7:00am to 4:30pm.

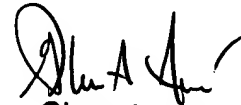
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 703-305-4815. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



Trisha U. Vu
Examiner
Art Unit 2189

uv
July 25, 2003



Glenn A. Auve
Primary Patent Examiner
Technology Center 2100